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| EXAMINER | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|-----------------|--|--------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/771,245 | | RIGHI ET AL. | |
| | Examiner | | Art Unit | |
| | John J. Romano | | 2192 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-19 and 22-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-19 and 22-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. Applicant's amendment and response received April 12th, 2007, responding to the January 16th, 2007, Office action provided in the rejections of claims 1-40, wherein claims 1, 2, 15 and 16 have been amended, claims 4, 20 and 21 have been cancelled; and claims 1-3, 5-19 and 22-40 remain pending in the application and which have been fully considered by the examiner.

Applicant's amendments with respect to the claim objection to claim 2 have been fully considered and are persuasive. Accordingly, the claim objection of claim 2 has been withdrawn.

Applicant's amendments with respect to the §101 rejection to claim 15 have been fully considered and are persuasive. Accordingly, the §101 rejection of claim 15 has been withdrawn.

Thus, the rejection of the claims over prior art in the previous Office action is maintained in light of additional new grounds of rejection as necessitated by amendment and **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Prior Art's Arguments – Rejections

2. Applicant's arguments filed April 12th, 2007, have been fully considered but they are not persuasive. For example,

(A) In regard to the Applicant's argument with respect to claim 1, that *Lajoie* nor *DeRoo* do not teach or suggest "in response to receiving the new firmware image, updating a current firmware within the network attached computer with the new firmware image, in the operating system independent environment", (page 12, first paragraph of the amendment and response), the examiner respectfully disagrees. *Laroie* discloses a method to upgrade the firmware on the device "according to commands received by the server" (See abstract), wherein the application program (operating system) transfers control to the upgrade program 320, which executes commands from the server (E.g., see Figure 3 & Column 6, lines 31-38), wherein the program uses the boot ROM 200 functions to execute from the server 110 on the 8052 micro-controller. *Laroie* is teaching a low level way to control/direct a microprocessor with low level commands that is without any operating system. It is noted that an operating system is typically loaded into RAM and then manages/controls the hardware including the micro-controller. *Laroie* expressly discloses "The application program 310 is typically the control program [operating system] of the corresponding device 120." (emphasis added). Here, it is clear that *Laroie*'s "application program" 310 is the equivalent to an operating system for

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device 120. Accordingly, *Laroie* indeed teaches transitioning control to an operating system independent environment.

(B) In regard to the Applicant's argument with respect to claim 2 (page 12, second paragraph), the examiner refers to the portions of claim 1 as discussed above. Applicant's remaining arguments with respect to claim 2, fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

(C) In regard to the Applicant's argument, with respect to claim 16, that *Wu* does not teach or suggest "current firmware is valid", (page 13, second paragraph of the amendment and response – emphasis in original), the examiner respectfully disagrees. It is noted that the plain language of the claim "current firmware" within the computer is interpreted as the current received BIOS image (firmware). Subsequently, the current image is tested for validity as claimed. Accordingly, *Wu* does indeed teach testing the "current firmware".

(D) In regard to the Applicant's arguments with respect to claim 32, that *Lajoie* and *DeRoo* do not teach or suggest to "*monitor a communications port of the second computer for the instruction to update the firmware*", (page 13, last paragraph of the amendment and response – page 14, second paragraph), the examiner respectfully disagrees. Applicant argues that *DeRoo* discloses an "operating system" (page 14, second paragraph); particularly, while Applicant acknowledges that *DeRoo* discloses "command sequences that might be intercepted by operating systems that monitor

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accesses to standard ports" (See response, page 13, last paragraph – page 14, first paragraph). The examiner notes that the Acknowledged passage of *DeRoo* teaches "wherein an application monitors a port for an instruction". Indeed an operating system is an application (emphasis added). *DeRoo* expressly discloses the operating system (application), as acknowledged above, monitoring port accesses to intercept command sequences/instructions (emphasis added).

Accordingly, the only remaining limitation recited in the instant claim is "the instruction to update the firmware". However, the office action cites *Lajoie* (See Claim 1) for the instruction to update the firmware. As an operating system is a set of software components that manages hardware and *DeRoo* expressly teaches monitoring a port (hardware) for particular instructions (command sequences), the respective disclosure to monitor a port for a particular command sequence would have at least made it obvious to one of ordinary skill in the art, at the time the invention was made to monitor a port for a instruction to "update the firmware" as taught by *Lajoie* herein. Correspondingly, the examiner maintains the rejection over *DeRoo* as addressed herein-above.

(E) In regard to the Applicant's argument that *Lajoie* nor *DeRoo* do not teach or suggest "in response to receiving the instruction, transition to an operating system independent recovery state", (page 14, second paragraph of the amendment and response), the examiner respectfully disagrees. *Lajoie* discloses a method to upgrade the firmware on the device "according to commands received by the server" (See abstract), wherein the application program (operating system) transfers control to the

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upgrade program 320, which executes commands from the server (E.g., see Figure 3 & Column 6, lines 31-38), wherein the program uses the boot ROM 200 functions to execute from the server 110 on the 8052 micro-controller. *Laroie* is teaching a low level way to control/direct a microprocessor with low level commands that is without any operating system. It is noted that an operating system is typically loaded into RAM and then manages/controls the hardware including the micro-controller. *Laroie* expressly discloses "The application program 310 is typically the control program [operating system] of the corresponding device 120." Here, it is clear that *Laroie's* "application program" 310 is the equivalent to an operating system for device 120. Accordingly, *Laroie* indeed teaches transitioning control to an operating system independent environment.

(F) In regard to the Applicant's argument, with respect to claim 37, that *Reuss* does not teach or suggest "monitoring a port", (page 14, fifth paragraph of the amendment and response), the examiner notes that the specific sentence should have cited *DeRoo* as applied to claims 9 and 10 of the previous and instant action. In regard to *DeRoo* teaching monitoring a port, the examiner refers to section (D) above. In regard to "recovery state", *Lajoie* teaches a firmware upgrade transitioning to a independent operating system in reply to a corrupted version firmware (Column 3, lines 59-67), or equivalently a recovery state. Accordingly, the rejections are maintained in light of the further clarifications provided above and the claim rejections herein-below.

(G) In regard to the Applicant's argument with respect to claims 9 and 10, (page 15, second – fourth paragraph), the examiner refers to sections (D) and (E) above, wherein the corresponding similar arguments are addressed.

(H) In regard to the Applicant's argument, with respect to claims 12, 22 and 28, (page 16, third – fourth paragraph), the examiner respectfully disagrees and refers to section (C) above. It is noted that the plain language of the claim "current firmware" within the computer is reasonably interpreted as the current received BIOS image (firmware) or new firmware. Accordingly, the current image is tested for validity as claimed. Accordingly, *Wu* does indeed teach testing the "current firmware".

(I) In regard to the Applicant's argument with respect to claim 29 (page 17, second paragraph), the examiner refers to the portions of claim 1 as discussed above in section (A). Applicant's arguments with respect to claim 29, fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

(J) In regard to the Applicant's argument with respect to claims 33, 35, 38 and 40, (page 17, fourth paragraph – page 18, first paragraph), the examiner refers to corresponding sections (A) thru (E) above, wherein the corresponding similar arguments are addressed.

(K) Applicant's remaining arguments with respect to the claims rejection have been considered but are moot in view of the new grounds of rejection below in the claim rejections.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims **1-3** and **5-15** and **32** are provisionally rejected on the ground of nonstatutory double patenting over claims **1-3** and **5-12** and **15-17** of copending Application No. 10/770,951. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

In regard to claim **1**, it would be inherent over claim **1** of the cited co-pending application to perform the upgrade "at least one network attached computer" in a network in light of performing the method on "a plurality of computing devices" in a distributed network. It also would have been obvious that a "firmware maintenance

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procedure" as recited in the co-pending application is a type of "firmware recovery" procedure as recited in the instant application.

In regard to claims 7 and 8, see claim 7 of the co-pending application.

In regard to claims 2-3, 5-6, 9-15 and 32, see claims 2-3, 5-6, 8-12 and 15-17, respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lajoie et al., US 7,093,244 (art of record & hereinafter **Lajoie**) in view of Doherty et al., US 7,080,134 (new art of record & hereinafter **Doherty**).

In regard to claim 1, **Lajoie** discloses:

- *"A method for updating firmware on a plurality of computing devices over a distributed network..."* (E.g., see Figure 1 & Column 2, lines 65-Column 3, line 4), wherein a method for an upgrade server (manager) upgrading one or more devices is described.
- *"...receiving over the distributed network at the network attached computer, an instruction to begin a firmware recovery procedure, the*

instruction received while executing an operating system ..." (E.g., see Figure 3 & Column 4, lines 20-23), wherein the server initiates the upgrade process by sending out the escape command to the application program (operating system) which controls the device..

- "...receiving a new firmware image over the distributed network in the operating system independent environment; and in response to receiving the new firmware image, updating a current firmware within the network attached computer with the new firmware image, in the operating system independent environment." (E.g., see Figure 6 & Column 4, lines 32-39), wherein firmware may be upgraded from the server commands by the upgrade program independent of the operating system (application program). *Laroie* expressly discloses "The application program 310 is typically the control program [operating system] of the corresponding device 120." Accordingly, *Laroie* indeed teaches an operating system independent environment.

But *Lajoie* does not expressly disclose "...in response to receiving the instruction, rebooting the network attached computer to an operating system independent environment...". However, *Doherty* discloses:

- "...in response to receiving the instruction, rebooting the network attached computer to an operating system independent environment..." (E.g., see Figure 3 & Column 7, lines 12-18), wherein upon receipt of the server command from the management server 710

the client is caused to boot to a specific program on the client such as the PXE. The PXE-enabled clients (may be plurality) may be managed by remote servers and configured to communicate with a remote server "[a]t a boot-up, but before loading an operating system into main memory". (See Column 1, lines 23-36). The PXE environment may then download and upgrade software including firmware.

Lajoie and **Doherty** are analogous art because they are both concerned with the same field of endeavor, namely, a method for updating or upgrading firmware in an operating system independent environment. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine **Doherty's** PXE with **Lajoie's** firmware upgrade method. The motivation to do so would have been to allow upgrading firmware via a network link to decrease memory requirements as taught by **Lajoie** (E.g., see Column 2, lines 57-61).

In regard to claim 2, the rejections of base claim 1 are incorporated.

Furthermore, **Lajoie** discloses:

- "...in response to ... sending a notification of readiness to update from the network attached computer over the distributed network to the manager computer." (E.g., see Figure 2 & Column 8, line 65-Column 9, line 7), wherein the server (manager) upgrades the plurality of client devices simultaneously (parallel) wherein the upgrade program communicates with the server in a lock step upgrade protocol.

See claim 1 for the remaining limitations.

In regard to claim 3, the rejections of base claim 2 are incorporated.

Furthermore, **Lajoie** discloses:

- "...comprises erasing the current firmware and copying the new firmware image to a memory location of the network attached computer." (E.g., see Figure 4 & Column 4, lines 31-34), wherein the commands allow for remote erasing, reading and writing to the device 120, being upgraded by the upgrade server.

In regard to claims 14 and 15, see Figure 2, wherein a computer controlled apparatus and readable medium is disclosed.

5. Claims 5–8 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lajoie** in further view of **Doherty** in view of **Reuss**, US 2003/0165230 (hereinafter **Reuss**) and further in view of **Luby et al.**, US 2002/0129159 (hereinafter **Luby**).

In regard to claim 5, the rejections of base claim 2 are incorporated. But **Lajoie** does not expressly disclose broadcasting in fragments. However, **Reuss** discloses:

- "...receiving a broadcast status request prior to updating the current firmware..." (E.g., see Figure 1 & paragraphs [0102] – [0103]), wherein firmware updates are broadcast prior to the update via UDP or TCP or similar protocol.

Lajoie and **Reuss** are analogous art because they are both concerned with the same field of endeavor, namely, a method for updating or upgrading firmware in a

distributed system. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine **Reuss's** broadcasting method with **Lajoie's** firmware upgrade method. The motivation to do so would have been to allow easy management of a plurality of devices as taught by **Reuss** (E.g., see page 1, paragraph [0008]).

However, **Lajoie** and **Reuss** do not expressly disclose rebroadcasting missing or corrupted packets. However, **Luby** discloses:

- *"...in response to receiving the broadcast status request, determining whether a rebroadcast of any fragment of the new firmware image is necessary; in response to determining that the rebroadcast of one or more fragments is necessary, sending a request for the rebroadcast of the fragments; and receiving the rebroadcast of fragments in response to sending the request."* (E.g., see Figure 4 & Column 7, lines 19-41), wherein missing packets are determined and are rebroadcast based on individual identification.

The combined art of **Lajoie, Reuss** (hereinafter **the combined art**) and **Luby** are analogous art because they are both concerned with the same field of endeavor, namely, a method for serving packets of data. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine **Luby's** broadcasting method with **the combined art's** firmware upgrade method. The motivation to do so would have been to allow easy management of a plurality of devices as taught by **Reuss** (E.g., see page 1, paragraph [0008]) to ensure reliability.

In regard to claim 6, the rejections of base claim 5 are incorporated.

Furthermore, **Luby** discloses:

- "...determining whether the rebroadcast of any fragments of the new firmware image is necessary comprises determining whether any fragments are missing or corrupted." (E.g., see Figure 4 & Column 7, lines 19-41), wherein missing packets are rebroadcast based on individual identification.

In regard to claim 7 and 8, the rejections of base claim 5 are incorporated.

Furthermore, **Luby** discloses "*fragments of the firmware image are numbered*" and "*a user datagram protocol/Internet protocol.*" (E.g., see Figure 4 & Column 7, lines 19-41), wherein missing packets are rebroadcast based on individual identification.

In regard to claim 24, see claims 5 and 8.

In regard to claims 25 and 26, see claims 6 and 7, respectively.

6. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lajoie** in further view of **Doherty** in view of **Reuss**, US 2003/0165230 (hereinafter **Reuss**) and further in view of **Luby et al.**, US 2002/0129159 (hereinafter **Luby**) in view of **Wu et al.**, 6,732,267 (art of record & hereinafter **Wu**).

In regard to claim 17, the rejections of base claim 16 are incorporated.

Furthermore, **Reuss** discloses:

- "...sent to a network address of a recovery manager computer storing the new firmware image." (E.g., see paragraph [0104]), wherein the device is given a network address to retrieve the firmware update.

In regard to claims **18** and **19**, **Lajoie** and **Reuss** do not expressly disclose "the network address of the recovery manager computer is stored on the network attached computer" or "located by querying a baseboard management controller operating on the network attached computer. However, one of ordinary skill in the art, at the time the invention was made would have known to store or look-up the network address.

Motivation to do so was provided by **Reuss** (e.g., see paragraph [0061], wherein **Reuss** discloses the internet protocol requires a unique network address that may be preset (stored) and static or it can be dynamic, whereupon a central registration server (management controller) assigns the address whenever a new device announces its presence on the network to permit addressing capability flexibility for a call center assest management and control system. Further, **Reuss** discloses the Internet Engineeering Task Force (IEFT) documents the standards that comprise the IP are well known and widely available. Thus, look-up and storing such protocols would have been obvious.

7. In regard Claims **9** and **10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lajoie** in view of **Doherty** and further in view of **DeRoo et al.**, 5,596,713 (hereinafter **Deroo**).

In regard to claim 9, the rejections of base claim 2 are incorporated. But, **Lajoie** does not expressly disclose "*monitoring a communication port of the network attached computer for the instruction to begin the recovery procedure*". However, **DeRoo** discloses:

- "*monitoring a communication port of the network attached computer for the instruction...*" (E.g., see Column 38, lines 25-32), wherein an application monitors a port for an instruction.

Lajoie, Doherty and DeRoo are analogous art because they are both concerned with the same field of endeavor, namely, a method for updating or upgrading firmware in a distributed system. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine **DeRoo's** broadcasting method with **Lajoie and Doherty's** firmware upgrade method. But, **Lajoie, Doherty and DeRoo** do not expressly disclose "*...only upon receiving the instruction*". However, **DeRoo** discloses the method of an application monitoring a port for a particular command as addressed above in sections (B) and (D). Additionally, suggestion is provided by, **Lajoie** teaching a flash memory typically includes a separate interface to the device, such as a serial port or similar access for downloading a new version of firmware (See **Lajoie**, column 2, lines 1-15). Accordingly, it would have been obvious to one of ordinary skill in the art, to deduce that monitoring instruction activity on a separate interface communication port for a firmware upgrade as claimed.

The motivation would have been to ensure reliable communication in a timely manner.

In regard to claim **10**, the rejections of base claim **9** are incorporated. But, **Lajoie** and **DeRoo** do not expressly disclose "...*only upon receiving the instruction*". However, in light of the teaching of an application monitoring a port for an instruction" it would have been obvious to one of ordinary skill in the art to employ a dedicated particular application. The motivation would have been to ensure reliable communication in a timely manner.

8. In regard Claim **32** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lajoie** in view of DeRoo et al., 5,596,713 (hereinafter **Deroo**).

In regard to claim **32**, see claims **1, 2** and **9** with respect to **Lajoie** and **Deroo**.
Furthermore **Lajoie** discloses:

- "...*in response to receiving the instruction, transition to an OS independent recovery state...*" (E.g., see Figure 3 & Column 4, lines 23-25), wherein upon receipt of the escape message (command) the device 120 breaks out of its normal operation mode and transfers control to the upgrade program 320.

9. In regard Claims **11-13, 16, 22-23, 27-31, 33- 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lajoie** in view of **Doherty** and further in view of Wu et al., 6,732,267 (art of record & hereinafter **Wu**).

In regard to claim **11**, the rejections of base claim **2** are incorporated. But **Lajoie** does not expressly disclose "...*in response to updating the current firmware with the*

new firmware image, sending a notification of the update to the manager computer."

However, **Wu** discloses:

- *"...in response to updating the current firmware with the new firmware image, sending a notification of the update to the manager computer."*

(E.g., see Figure 2 & Column 4, lines 34-55), wherein test of successful BIOS upgrade and corresponding flag setting is disclosed.

Lajoie, Doherty and **Wu** are analogous art because they are both concerned with the same field of endeavor, namely, a remote method for updating or upgrading firmware in a distributed system. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine **Wu's** notification method with **Lajoie** and **Doherty's** firmware upgrade method.

In regard to claim 12, the rejections of base claim 2 are incorporated.

Furthermore, **Wu** discloses:

- *"...determining whether a current firmware is valid after being updated; and when it is determined that a current firmware is valid then initiating a boot of the network attached computer utilizing the current firmware."* (E.g., see Figure 2 element 226).

In regard to claim 13, the rejections of base claim 2 are incorporated.

Furthermore, **Lajoie** discloses:

- *"...comprises a BIOS of the network attached computer."* (E.g., see Figure 2).

In regard to claim 16, **Lajoie** discloses:

- "...*sending a recovery request over the distributed network; in response to sending the recovery request...*" (E.g., see Figure 3 & Column 4, lines 36-39), wherein the device initiates the upgrade.
- "...*sending a recovery request in response to determining that the current firmware is invalid...*" (E.g., see Figure 6), wherein the Valid CRC decision diamond is evaluated and upon failure returns to the top of the flowchart, wherein an error is sent and a new instruction is awaited.

But Lajoie does not expressly disclose "...*determining whether a current firmware within the network attached computer is invalid; booting the network attached computer with the current firmware in response to determining that the current firmware within the network attached computer is valid...*". However, Wu discloses:

- "...*determining whether a current firmware within the network attached computer is invalid; booting the network attached computer with the current firmware in response to determining that the current firmware within the network attached computer is valid...*" (E.g., see Figure 2 element 222), wherein a boot is initiated upon successful determination of valid or invalid BIOS, See Figure 2 (214) of updated firmware. Note that if invalid a status indicator 240 is set.

See claim 1 for the remaining limitations.

In regard to claim 22, see claim 12.

In regard to claim 23, see claim 3.

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In regard to claims **27** and **28**, see claims **11** and **12**, respectively.

In regard to claim **29**, see claims **1** and **13**.

In regard to claim **30** and **31**, see claim **14** and **15**, respectively.

In regard to claim **33**, see claim **12**.

In regard to claim **34**, see claims **5**, **6** and **8**.

In regard to claim **35** and **36**, see claims **11** and **13**.

10. Claims **37-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lajoie** in further view of **Doherty** in view of Reuss, US 2003/0165230 (hereinafter **Reuss**) and further in view of Luby et al., US 2002/0129159 (hereinafter **Luby**) in view of Wu et al., 6,732,267 (art of record & hereinafter **Wu**) and further in view of **DeRoo**.

In regard to claim **37**, **Lajoie** does not expressly disclose the manager computer monitoring a port of the first computer for at least one request. However, it would have been obvious in light of **Lajoie**'s disclosure of the device initializing the upgrade and **DeRoo**'s teaching of monitoring a port. Claim **37** is a server version of the previous client (network attached computer) claims. See claims **1** and **16** for the remaining limitations.

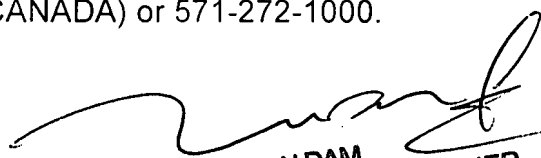
In regard to claims **38-40**, these are server version of the client version claims of **4**, **5**, **12** and **13**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Romano whose telephone number is (571) 272-3872. The examiner can normally be reached on 8-5:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJR



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